



# Computer Science Certificate

This program map represents one possible path for completing this program. **Please see a counselor** to create an educational plan that is customized to meet your needs. This path is not a guarantee of course availability or financial aid applicability.

**Catalog:** 2023-24

**Total Units:** 37

## First Year

### Semester 1

**9 Units**

CAT.	COURSE	TITLE	UNIT
Maj	CISC 310	Introduction to Computer Information Science	3
Maj	CISP 301	Algorithm Design and Implementation	4
Maj	CISC 323	Linux Operating System	1
Maj	CISC 324 <sup>+</sup>	Intermediate Linux Operating System	1

**+ Prerequisite for CISC 324:** CISC 323 with a grade of "C" or better

### Semester 2

**10 Units**

CAT.	COURSE	TITLE	UNIT
Maj	CISP 360 <sup>+</sup>	Introduction to Structured Programming	4
Maj	CISP 350 <sup>+</sup>	Database Programming	3
ME		*Major Elective (List A)	3

**\*See List in Semester 4.**

**+ Prerequisite for CISP 360:** CISP 301 with a grade of "C" or better

**+ Prerequisite for CISP 350:** CISA 323 or CISP 301 with a grade of "C" or better

## Second Year

### Semester 3

**11 Units**

CAT.	COURSE	TITLE	UNIT
Maj	CISP 310 <sup>+</sup>	Computer Architecture and Organization	4
ME	CISP 400 <sup>+</sup> / 401 <sup>+</sup>	Major Elective	4
ME		*Major Elective (List A)	3

**\*See List in Semester 4.**

**+ Prerequisite for CISP 310:** CISP 301 and 360 with grades of "C" or better

**+ Prerequisite for CISP 400 & 401:** CISP 360 with a grade of "C" or better

### Semester 4

**7 Units**

### Legend

- (H) - Honors
- Elec - Elective
- GE - General Education
- Maj - Required Core
- ME - Major Elective

### Disclaimer

Every effort has been made to ensure that what is listed in the SCC Program Paths are accurate. The courses, the course sequencing, and the programs are subject to change without notice by the administration of the Los Rios Community College District and Sacramento City College at the discretion of the district and Sacramento City College. Further, Sacramento City College reserves the right to amend any course or program.

**PLEASE SEE AN SCC COUNSELOR.**

### Department Notes

- Students are encouraged to contact the CIS faculty for course sequence adjustments.
- Department contact: Meili Xu

XuM@scc.losrios.edu

### Certificate of Achievement Requirements

Certificates of Achievement require a grade of "C" or better in each course with a minimum of 12 units completed at Sacramento City College.

### Important Links

[SCC General Counseling](#)  
[Computer Information Science](#)  
[Business & Industry Meta Majors](#)

CAT.	COURSE	TITLE	UNIT
<b>Maj</b>	CISP 430 <sup>+</sup>	Data Structures	4
<b>ME</b>	CISP 440 <sup>+</sup> / 457 <sup>+</sup>	Major Elective	3

**+ Prerequisite for CISP 430:** CISP 400 or 401 with a grade of "C" or better

**+ Prerequisite for CISP 440:** CISP 400 or 401 with a grade of "C" or better

**+ Prerequisite for CISP 457:** CISA 323 and CISC 310 with grades of "C" or better; and any one of the following: CISP 320, CISP 360, CISP 370, CISP 400, or CISP 401 with grade of "C" or better

**Major Elective List A** (A minimum of 6 units from the following)

CISC 351 Introduction to Local Area Networks

CISC 355 Introduction to Data Communications

CISN 303 Network Administration - Linux Server

CISP 357 introduction to Big Data

CISP 358+ Data Analysis

CISP 359+ Data Modeling and Machine Learning

CISP 362+ Programming for Mobile Devices

CISP 401+ Object Oriented Programming with Java

CISP 457+ Introduction to Systems Analysis & Design

CISS 300 Introduction to information Security Systems

CISS 310 Network Security Fundamentals

CISW 327 Introduction to Web Development coding HTML & CSS

CISW 400+ Client-side Web Scripting

CISW 410+ Middleware Web Scripting

**+ Prerequisite for CISP 358 & 359:** CISP 357 with a grade of "C" or better

**+ Prerequisite for CISP 362:** CISP 301, 360, 400, or 401 with a grade of "C" or better; or experience using any modern, high-level programming language

**+ Prerequisite for CISW 400 & 410:** CISW 327 with a grade of "C" or better; or equivalent experience hand-coding Web pages; AND CISP 301 with a grade of "C" or better or equivalent programming experience